



Chevron Resources Company

A division of Chevron Industries, Inc.

Manila Star Route, Vernal, UT 84078 • Phone (801) 789-2233

M/047/007

Rec DOGM
3/10/57

LPS

March 9, 1987

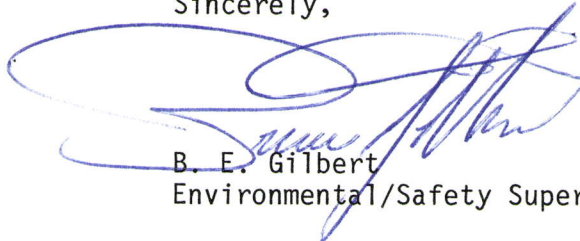
Ms. Susan Linner
UTAH DIVISION OF OIL GAS & MINING
3 Triad Center, Suite 350
355 W. North Temple
Salt Lake City, Utah 84180-1203

Dear Susan:

Enclosed is the 1986 Annual Mining and Reclamation Report for the Chevron Resources Vernal Phosphate Operation.

Should you have any questions, please contact me at the above address.

Sincerely,



B. E. Gilbert
Environmental/Safety Supervisor

BEG/lab

Enc.

cc: R. D. Haddenham
066/1A

ANNUAL OPERATIONS AND PROGRESS REPORT

1986

(This report must be submitted to the Division by ^{APRIL 30}~~March 31~~, 1987.)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
3 Triad Center, Suite 350
355 West North Temple
Salt Lake City, Utah 84180-1203
(801) 538-5340

OPERATOR: Chevron Resources Co. MINE NAME: Vernal Phosphate
ADDRESS: Manila Star Route
Vernal, UT 84078
PERMIT NUMBER AND DATE OF PERMIT: ACT/047/007
REPRESENTATIVE: Bruce Gilbert
SECTION(S): various TOWNSHIP(S): 2&3 South RANGE(S): 21 East
MINERAL(S) MINED: phosphate

Section 40-8-15 and Rule M-8 of the Utah Mined Land Reclamation Act, requires each operator to include with this report an up-dated map and plan prepared in accordance with Rule M-3, as outlined in the requirements for annual report maps in Appendix I, providing a detailed status of all mining and reclamation activities which have occurred during the past year.

The report should include:

MINING:

(a) Tabulation of acreage disturbed (by pits, roads, facilities, etc.) during the report period with illustration on a current map.

<u>Disturbance</u>	<u>Acreage</u>
Pit	<u>23</u>
Roads	
Facilities	<u>3 (new sub-station)</u>
Waste Dumps	
Other	<u>38 (guard gate area reclamation)</u>

(b) Tabulation of acreage affected to date (by years).

<u>Date by Year</u>	<u>Acreage (Total)</u>
1975	27.4
1976	27.4
1977	27.4
1978	27.4
1979	27.4
1980	27.4
1981	27.4
1982	40.0
1983	41.0
1984	41.0
1985	110.0
1986	65.0
	64.0

(c) Tabulation of all topsoil (new) stockpile volumes (see chart below) and date of stockpiling.

SOIL TABULATION CHART

Area Affected (in mining sequence) (If more space is needed, please attach.)	Area
	1 2 3 etc.
Acreage of Area	Panels "D" & "E" 23 ac
Depth of Topsoil Removal (inches)	6"
Depth of Topsoil Replacement (inches)*	6"
Estimate of Topsoil Volume Salvaged (yd ³ or ac ft)	18,553 yd ³
Volume Actually Salvaged (yd ³ or ac ft)	18,553 yd ³
Volume Required for Reclamation (yd ³ or ac ft)	18,553 yd ³
Surplus or Deficit Volume (yd ³ or ac ft)	None
Storage Status (short- or long-term)	8700 yd ³
Storage Location	Panels "C" & "D"
Area Where Soil Has Been Used (if not stored)	Panels "D" & "E"
Running Total (all stockpiles) (yd ³ or ac ft)	8700 yd ³
Short-term	6700 yd ³
Long-term	2000 yd ³

*Of previously stripped area recently reclaimed.

(d) Tabulation of all (newly removed) out-of-pit spoil volumes, date of placement and illustration on a map.

<u>Area</u>	<u>Date</u>	<u>Acreage</u>
<u>All spoils are directly moved into mined out areas and immediately recontoured.</u>		

(e) Tabulation of quantity of commodity mined.

	<u>Commodity</u>	<u>Tonnage</u>
(Mined)	<u>Raw phosphate ore</u>	<u>1,286,370</u>
(Milled)	<u>Raw phosphate ore</u>	<u>1,228,308</u>

(f) Description of any new construction during the report period with illustration on a map, including, but not limited to:

1. Buildings and support facilities.

N/A

2. Roads.

Access and haul roads in Panels D&E mining areas.

3. Diversion ditches, collector ditches, interceptor ditches, etc.

Diversion ditches and collector drains in tailings dam construction area

4. Culverts.

None

5. Sediment ponds, containment ponds.

Sediment ponds on main roads as required

6. Monitoring sites (vegetative, air quality, surface subsidence, surface water or ground water, etc.).

Monitor well #7 drilled for ground water 3/28/86
total depth - 40'

7. Topsoil stockpiles.

Panels C&D have a total of 8700 yd³ topsoil stockpiled

(g) Description of any environmental problem areas with a proposed plan for mitigation and illustration on a map, including, but not limited to:

1. Pit stability problems.

None

2. Subsidence.

None

3. Accidental water discharge, dam failure, etc.

None

4. Slumping, sliding or erosion.

None

5. Revegetation problem areas.

None

6. Existence and location of unsuitable (toxic) overburden.

None

RECLAMATION:

(a) Tabulation of the acreage reclaimed during the report period with illustration on a map, distinguishing between:

1. Backfilled, graded and contoured areas.

<u>Area</u>	<u>Acreage</u>
Panel A	60
Panel D	18
Panel E	7
Panel C	4

2. Topsoiled areas.

<u>Area</u>	<u>Acreage</u>
Panel A	60
Panel D	18
Panel E	7
Panel C	4

3. Seeded areas.

<u>Area</u>	<u>Acreage</u>
Panel A	104
Panel D	18
Panel E	7
Panel C	4
Meadow	38

4. Reseeded areas (areas previously seeded, then seeded again).

<u>Area</u>	<u>Acreage</u>
None	

(b) Tabulation of total acreage reclaimed (seeded with permanent seed mix) to date by years with illustration on an updated map:

<u>Year</u>	<u>Acreage</u>
1975	-
1976	27
1977	-
1978	13
1979	2
1980	41
1981	23.5
1982	71
1983	103
1984	138
1985	124
1986	171

(c) Description of the reclamation procedures used during the report period, including:

1. Average depth of topsoil applied.

6"

2. Type of seed (species) used for seeding during the report period.

Approved mix in 1983 MRP

Atriplex Canescens at 2 lbs per acre

3. Date of seeding during the report period.

Spring March 15 - May 15

Fall September 15 - November 1

4. Seeding procedures used.

(Hand broadcast or drilled or any other).

Drilled in areas with slopes of 3V:1H or less

5. Rate of seed application.

Pounds Per Acre of Pure Live Seed (PLS) (if varied, please explain)

Approximately 26 lbs per acre (PLS) drilled

6. Type and rate of fertilizer applied.

None

7. Type and rate of mulch applied.

Native meadow hay from lower pasture at a rate of approximately
2,000 pounds per acre

8. Rate of irrigation water applied, if any. Please describe any
type of sprinkling, or water applied (water truck, etc.).

Flood irrigation in meadow area at 28 acre feet weekly
for 8 weeks

9. Revegetation test plot information.

(Cover, density, productivity, etc.)

None - survey scheduled for April 1, 1987

10. Soil analysis results.

None

(d) Description of results of previous revegetation efforts, including:
(This should be done as applicable.)

1. Types (species) of seed that have germinated and are growing.

None

2. Types (species) of seed that are not growing successfully.

Survey scheduled for April 1987

3. Areas experiencing problems with weeds and weed types.

Pipeline right of way - thistle

4. Significant erosional problems.

None

5. Areas of unsuitable overburden on the surface as related to revegetation failure.

None

6. Procedures used or proposed to correct these problems.

N/A

7. Acreage and dates of release (upon inspection by the State) of revegetated areas.

Area

Date

Acreage

None

Release inspection scheduled for June 1987

8. Results of soil analysis.

N/A

(e) Summarization of the reclamation costs incurred during the report period, including itemized costs for each operation (i.e., grading, topsoil replacement, seeding, etc.) and for each type of disturbance (i.e., spoil, haul roads, facilities removal, etc.) on a per acre basis.

	<u>Acres</u>	<u>Cost/Acre</u>
1. Grading	<u>171</u>	<u>740</u>
2. Backfilling	<u>171</u>	<u>740</u>
3. Contouring	<u>171</u>	<u>740</u>
4. Topsoil Replacement	<u>171</u>	<u>560</u>
5. Seeding	<u>171</u>	<u>50</u>
A. Seedbed Preparation	<u>-</u>	<u>-</u>
B. Mulch	<u>-</u>	<u>-</u>
C. Fertilizer	<u>-</u>	<u>-</u>
D. Seed	<u>171</u>	<u>55</u>
6. Other	<u>-</u>	<u>-</u>

BOND INFORMATION:

- A. An updated bond estimate should be included, if required in the Division's approval of the Mining and Reclamation Plan (MRP) or if changes to the MRP have occurred, including a detailed itemization of actual/estimated reclamation costs as outlined in the RECLAMATION section above. The date of the release of revegetated areas from further responsibility for a partial bond release, if applicable, should also be included.

	<u>Amount</u>	<u>Type</u>	<u>Date Posted</u>
Present Bond	<u>\$4.7</u>	<u>Cash</u>	<u>1/23/86</u>

Increased disturbance, if any:

23 acres in mine area

Increased Bond Amount (attached reclamation estimate).

- B. Bond release.

<u>Acres</u>	<u>Bond Amount Released</u>	<u>Date</u>
<u>-</u>	<u>-</u>	<u>-</u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>

ADDITIONAL INFORMATION:

Supply any additional information as requested by the Division related to:

- (a) Permit stipulations (status).
(b) Other special conditions (status).

APPENDIX I

ANNUAL REPORT MAPS

1. Maps must be clear and legible contour maps or recent aerial photos. The scale should be 1 inch = 500 feet to adequately show topographic features.
2. Map sheets should be of a reasonable size, not to exceed 48 inches on a side.
3. Maps must have a title block with:
 - A. Map title.
 - B. Name and address of permittee.
 - C. Permit and amendment numbers.
 - D. Annual report period.
 - E. Scale, north arrow, contour interval, date of photography, etc.
4. All maps must show:
 - A. Legal subdivisions.
 - B. Permit area boundary clearly shown and labelled.
 - C. Amendment areas clearly shown and labelled.
 - D. Contour features.
5. The following features should all be clearly identified:
 - A. Topsoil stockpiles (numbered and with volumes).
 - B. Settling ponds and sediment control structures.
 - C. Haul roads.
 - D. Pits identified by location, name, number, etc.
 - E. Ramps (numbered).
 - F. Out-of-pit spoil dumps.
 - G. All waste disposal sites including, but not limited to:
 1. Landfill sites.
 2. Carbonaceous waste dumps.
 - H. Diversion ditches.
 - I. Monitoring sites.
6. All areas to be affected by mining and reclamation in the coming year should be outlined and labelled.